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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/383,560	08/26/1999	RICHARD P. RUSIN	54989USA6A	6747

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EXAMINER

LEWIS, RALPH A

ART UNIT	PAPER NUMBER
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3732

23

DATE MAILED: 04/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/383,560

Applicant(s)

RUSIN ET AL.

Examiner

Ralph A. Lewis

Art Unit

3732

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 February 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 55-79 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 55-79 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>22</u> . | 6) <input type="checkbox"/> Other: _____ |

Finality of the previous Office Action Withdrawn

In view of the information disclosure statement and appeal brief filed on February 02, 2004, PROSECUTION IS HEREBY REOPENED. A new ground of rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

Rejections based on Prior Art

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 55-64 and 71-74 are rejected under 35 U.S.C. 102(b) as being anticipated by Oden et al (EP 0 477 157).

Oden et al '157 disclose the step of providing a "Highly pure Al_2O_3 " (column 3, line 54) dental mill blank (B) of high theoretical density ("preferably having a density over 99%, while densities over 99.5% give the best strength" column 3, lines 25-28). Oden et al '157 further disclose the milling of the fully sintered dental mill blank thereby eliminating the shrinkage problem (column 3, lines 28-31). In regard to claim 56, note layer "A". In regard to claims 62-64 and 71-73, to the extent that applicant's Al_2O_3 dental mill blank includes such properties so inherently must the Oden et al Al_2O_3 blank.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 59-64 and 71-74 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oden et al (EP 0 477 157).

In regard to the present claims, to the extent that Oden et al '157 does not explicitly or inherently teach the presently claimed properties and values, the ordinarily

skilled artisan would have found such to have been obvious in the routine operation and use of the disclosed Oden et al '157 method.

Claims 65-70 and 75-79 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oden et al (EP 0 477 157) in view of Rosenblum et al (JADA, Vol. 128, March 1997), Brandestini et al (US 4,766,704), and Rostvall '871 (WO 98/36871).

Oden et al '157 teach the providing of a crystalline ceramic body of "highly pure" Al_2O_3 (column 3, line 54) having a density preferably over 99.5% (column 3, line 28) that is milled to the desired dental prosthesis shape after full sintering (column 3, lines 28-31). Oden et al fail to suggest the use of a computer controlled milling machine, use of lubricant during milling, milling times, the specifically claimed shapes of the mill blank (claim 75) or the use of stub for holding the blank while milling.

Rosenblum et al, in an overview article on ceramic restorations discloses the common prior art use of computer controlled mills ("CAD-CAM") for milling fully sintered ceramic mill blanks (note page 303). Brandestini et al disclose the use of a computer controlled milling device for "shaping hard ceramic materials . . . in a matter of a few minutes" (column 1, line 63-54) wherein the ceramic blank is shaped as a bar 14 and attached to a stub 16 (Figure 2) and the use of a cooling/lubricant/cleaning material (column 6, lines 37-40). Finally, Rostvall '871 teaches a solution to the problem of milling dental blanks made of a high degree of hardness by arranging the blank in a liquid and using a high speed abrasive tool to shape the blank under the surface of the liquid. Rostvall teaches that the method is particularly effective in milling hard dental

ceramic blanks (page 2, lines 8-10). The ordinarily skilled artisan would have found it obvious to mill the Oden et al prior art fully sintered ceramic dental blank with the known prior art computer controlled milling devices in the known manner of providing for stubs to hold the blank, with the use of lubricants, conventional blank shapes and in the minimum time necessary as is all taught to be conventional in the art by the prior art references to Rosenblum et al, Brandestini et al and Rostvall '871

Response to Applicant's Remarks

Applicant's remarks have been considered and are moot in view of the new grounds of rejection.


Action Made Final

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

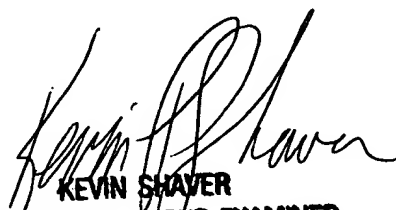
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication should be directed to **Ralph Lewis** at telephone number **(703) 308-0770**. Fax (703) 872-9303. The examiner works a compressed work schedule and is unavailable every other Friday. The examiner's supervisor, Kevin Shaver, can be reached at (703) 308-2582.

R.Lewis
April 8, 2004



Ralph A. Lewis
Primary Examiner
AA3732



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